

October 23, 1995

Service Request No.: K9506070

Jeff Randall
CH2M Hill
777 108th Ave. NE
Bellevue, WA 98004

Re: Longview Fibre/Project #117627.A0.22

Dear Jeff:

Enclosed are the results of the sample(s) submitted to our laboratory on september 28, 1995. For your reference, these analyses have been assigned our service request number K9506070.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 239.

Respectfully submitted,

Columbia Analytical Services, Inc.

A handwritten signature in black ink, appearing to read "Howard Boorse", is written over the company name.

Howard Boorse
Project Chemist

HB/td

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1164596

COLUMBIA ANALYTICAL SERVICES, Inc.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: CH2M Hill
Project: Longview Fibre/#117627.A0.22
Sample Matrix: Water

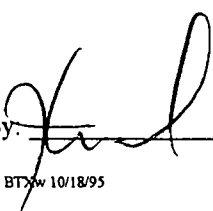
Service Request: K9506070
Date Collected: 9/26/95
Date Received: 9/28/95
Date Extracted: NA

Aromatic Volatile Organic Compounds
EPA Methods 5030A/8020
Units: µg/L (ppb)

Sample Name:	LF-MW-3	LF-MW-2	Trip Blank
Lab Code:	K9506070-001	K9506070-002	K9506070-003
Date Analyzed:	10/7/95	10/6/95	10/6/95

Analyte	MRL			
Benzene	0.5	ND	ND	ND
Toluene	1	ND	ND	ND
Chlorobenzene	0.5	ND	ND	ND
Ethylbenzene	1	ND	ND	ND
m-,p-Xylenes	1	ND	ND	ND
o-Xylene	0.5	ND	ND	ND
1,3-Dichlorobenzene	1	ND	ND	ND
1,4-Dichlorobenzene	1	ND	ND	ND
1,2-Dichlorobenzene	1	<4(a)	ND	ND

a The MRL is elevated because of matrix interferences.

Approved By: Date: 10/19/95

3S22/102094
06070PHC.LL1 - BTX w 10/18/95

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: CH2M Hill
Project: Longview Fibre/#117627.A0.22
Sample Matrix: Water

Service Request: K9506070
Date Collected: 9/26/95
Date Received: 9/28/95
Date Extracted: NA

Aromatic Volatile Organic Compounds
EPA Methods 5030A/8020
Units: µg/L (ppb)

Sample Name: Method Blank
Lab Code: K9506070-MB
Date Analyzed: 10/6/95

Analyte	MRL	
Benzene	0.5	ND
Toluene	1	ND
Chlorobenzene	0.5	ND
Ethylbenzene	1	ND
m-,p-Xylenes	1	ND
o-Xylene	0.5	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND

Approved By: 

Date: 10/18/95

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: CH2M Hill
Project: Longview Fibre/#117627.A0.22
Sample Matrix: Water

Service Request: K9506070
Date Collected: 9/26/95
Date Received: 9/28/95
Date Extracted: 10/2/95
Date Analyzed: 10/12-15/95

Total Petroleum Hydrocarbon as Diesel and Oil
 Washington DOE Method WTPH-D
 Units: µg/L (ppb)

Analyte:	Diesel	Oil*
Method Reporting Limit:	250	750

Sample Name	Lab Code		
LF-MW-3	K9506070-001	280000(a)	15000(a)
LF-MW-2	K9506070-002	413(b)	221(c)
Method Blank	K951002-MB	ND	ND

* Quantified using 30 weight motor oil as a standard.
 a Result is from the analysis of a diluted sample.
 b(c) Quantified as diesel(oil). The sample contained components that eluted in the diesel(oil) range, but the chromatogram did not match the typical diesel(oil) fingerprint.

Approved By: Wandau Date: 10/17/95

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Longview Fibre/#117627.A0.22
Sample Matrix: Water

Service Request: K9506070
Date Collected: 9/26/95
Date Received: 9/28/95
Date Extracted: NA
Date Analyzed: 10/6,7/95

Surrogate Recovery Summary
Aromatic Volatile Organic Compounds
EPA Methods 5030A/8020

Sample Name	Lab Code	Percent Recovery 4-Bromofluorobenzene
LF-MW-3	K9506070-001	100
LF-MW-2	K9506070-002	96
Trip Blank	K9506070-003	94
Method Bank	K9501007-MB	95

CAS Acceptance Limits: 69-114

Approved By: 

Date: 10/18/95

SUR1/111594

06070PHC.LL1 - BTXwSUR 10/16/95

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: CH2M Hill
Project: Longview Fibre/#117627.A0.22
Sample Matrix: Water

Service Request: K9506070
Date Collected: 9/26/95
Date Received: 9/28/95
Date Extracted: 10/2/95
Date Analyzed: 10/12-15/95

Surrogate Recovery Summary
Total Petroleum Hydrocarbons as Diesel and Oil
Washington DOE Method WTPH-D

Sample Name	Lab Code	Percent Recovery o-Terphenyl
LF-MW-3	K9506070-001	NA
LF-MW-2	K9506070-002	63
Method Blank	K951002-MB	70

CAS Acceptance Limits: 59-110

NA Not Applicable because of the sample matrix. Analysis of this sample required a dilution such that the surrogate concentration was diluted below the method reporting limit.

Approved By: Handover Date: 10/17/95

CH2M HILL
APPLIED SCIENCES LABORATORY

CHAIN OF CUSTODY RECORD AND AGREEMENT TO PERFORM SERVICES

CH2M Hill Project # 117627...A0.2Z		Purchase Order # 147539		LAB TEST CODES												SHADED AREA-- FOR LAB USE ONLY						
Project Name Longview Fibre				# OF CONTAINERS													Lab 1 #		Lab 2 #			
Company Name/CH2M HILL Office CH2M Hill Seattle																	Quote #		Kit Request #			
Project Manager & Phone # 452-5000 Mr. [] Ms. [] Jeff Randall Dr. [X] Jeff Randall																	Report Copy to: Jeff Randall		Project #			
Requested Completion Date: As per contract		Sampling Requirements SDWA <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <input type="checkbox"/>															Sample Disposal: Dispose <input checked="" type="checkbox"/> Return <input type="checkbox"/>		No. of Samples		Page of	
Type C O M P G R A B W A T E R S O I L A I R		Matrix															CLIENT SAMPLE ID (9 CHARACTERS)		Login		LIMS Ver	
Sampling Date Time								REMARKS		LAB 1 ID		LAB 2 ID										
9/26 1445		XX		LF-MW-3		3		XX														
9/26 1530		XX		LF-MW-2		3		XX														
9/26		XX		LF-MW-2		2		XX														
5/31 -		1XX		TRIP		2		X				Trip Blank										
Sampled By & Title Doug Kunkel Doug Kunkel WY 03				Date/Time 9/26/95 1600				Relinquished By Doug Kunkel Doug Kunkel				Date/Time 9/26/95 1600										
Received By Donna J. Levens				Date/Time 9/26/95				Relinquished By				Date/Time										
Received By				Date/Time				Relinquished By				Date/Time										
Received By Ruth Higley Ruth Higley				Date/Time 9/28/95				Shipped Via UPS BUS Fed-Ex Hand Other				Shipping #										
Work Authorized By Doug Kunkel Doug Kunkel 9/26/95				Remarks BTEX: 8020, chlorobenzene, 1,2 Dichlorobenzene, 1,3 Dichlorobenzene, 1,4 Dichlorobenzene on 40ML VIALS																		

Instructions and Agreement Provisions on Reverse Side

DISTRIBUTION: Original - LAB, Yellow - LAB, Pink - Client
 REV 3/94 FORM 340

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